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Agenda

MPO Transportation Technical Advisory Committee Meeting
MPO Conference Room
Morgantown Airport Terminal
March 10, 2015
1:30 PM

1. Call To Order
2. Approval of Minutes
3. TIP Amendments
4. Greenbag Road Study Report
5. University Avenue Complete Streets Study Consultant Selection and UPWP Amendment
6. I-79 Access Study Consultant Selection
7. Resolution Supporting the Rails to Trails Conservancy
8. Other Business
9. Meeting Adjournment



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Memorandum

Date: March 6, 2015
To: Transportation Technical Advisory Committee Members
From: Bill Austin, AICP
Subject: March 10, 2015 TTAC Agenda

Please find below a short description of the action items to be considered at the March 10, 2015 CAC Meeting to be held at the MPO Office in the Conference Room at 1:30 PM.

-Transportation Improvement Program Amendments-The Division of Highways has requested the following TIP Amendments:

FY 2015 Add

Morgantown

Deckers Creek Pedestrian Bridge-Transportation Alternatives Funding Project

TEA2014089TCD

Engineering Federal Funds \$87,500 Total Cost \$87,500

Construction Federal Funds \$192,500 Total Cost \$240,625

Westover Park Loop-Transportation Alternatives Funding

Project NRT2012681D Engineering Federal Funds \$3,520 Total Cost \$4,430

Project NRT2012702D Construction Federal Funds \$ \$19,520 Total Cost \$24,400

FY 2015 Modify

West Run Widening Project HSIP0671005D Right of Way-Increase Total Cost from \$100,000 (\$80,000 Federal Funds) to \$300,000 (\$240,000 Federal Funds)

It is respectfully requested that the TTAC recommend approval of the above TIP Amendments

-Greenbag Road Study- Please find enclosed the Executive Summary of the Draft Greenbag Road Corridor Study. The full draft report will be available on the MPO's website plantogether.org shortly. The table included in this agenda package shows the prioritized recommendations from the Study. These recommendations have been reviewed and approved by the Study Steering Committee. It is respectfully requested that the TTAC recommend the adoption of the Study and its recommendations to the MPO Policy Board.

-University Avenue Complete Streets Study-This item includes an amendment to the current Unified Planning Work Program as well as the recently approved UPWP for FY 2015-2016. As noted at previous TTAC meetings growth along the University Avenue corridor is intensifying this along combined with the need to develop a gateway into both of WVU's campuses and downtown Morgantown has led to the identification of University Avenue as a primary corridor into the community. For these reasons the MPO has been working with WVU and Sunnyside Up! to develop a comprehensive approach to the development and transportation issues associated with the University Avenue Corridor. The MPO developed a scope of work for a Study to address these issues and issued a Request For Qualifications to perform the Study. The Consultant Selection Committee including representatives of WVU, the City of Morgantown, Sunnyside Up! Monongalia County, WVDOH, Mountain Line, and the MPO reviewed the qualifications of the six consultants who submitted proposals to perform this Study. The Committee unanimously recommended that Stantec be selected to perform the Study. The Study Steering Committee has worked with Stantec to refine the Scope of Work for the Study. Please find below an abbreviated summary of that scope of work.

-Data Collection and Analysis-Including site visit, and information on travel demand in the corridor as well as collection of data on the physical characteristics of the corridor for use in preliminary design work.

-Public Involvement-Outreach to the community including a one and a half day charrette, an innovative website, a "project symposium" workshop with stakeholders, and multiple opportunities for public input including a "walkabout" along the corridor to gather insights from area residents.

-Land-use Modeling-A land-use model will be developed to determine the anticipated transportation impacts of ongoing and planned development. This model will also estimate the impact of proposed growth on non-transportation infrastructure in the area. The models output will include estimated trip generation characteristics of the proposed development for use in the transportation modeling efforts.

-Transportation modeling-Corridor level Syncro modeling to determine the operational characteristics of the corridor and its intersections, and regional travel demand modeling to determine the impact of any changes to the corridor on the adjacent arterial streets. Both of these efforts will result in preliminary designs for improvements along the corridor.

-Needs Assessment and Alternatives Analysis-This work will include analysis of alternative complete streets treatments and evaluation of safety and traffic operations issues for the corridor including developing alternatives for Grumbeins Island.

-Final Project Deliverables- A preferred access plan for University Avenue including preliminary intersection and corridor concept designs and a phased construction plan. The consultant will also provide guidelines for a corridor overlay district, an analysis of funding opportunities and strategies including a cost benefit analysis.

You may find a complete description of the work to be performed in the Scope of Work included with the Agenda. The total cost of the Study is approximately \$225,000. It is respectfully requested that the TTAC recommend that the Policy Board amend the current UPWP to include the funding for this project and to authorize the MPO Director and Policy Board Chairman to enter into a contract with Stantec for the conduct of this Study.

-I-79 Access Study Consultant Selection and Contract Authorization-The MPO's Long Range Transportation Plan calls for a complete evaluation of alternative river crossings to provide the area with better access to I-79. One half of the cost of this Study was included in the current years Unified Planning Work Program, the funding for the remainder of the Study was included in next year's UPWP as approved by the Policy Board in January.

The MPO released a Request for Qualifications to perform this Study and received four responses from firms interested in performing this Study. The Study Consultant Committee consisting of representatives from the City the County, Mountain Line and the MPO recommended HDR with their subcontractor Alpha Associates to perform this Study.

As noted in previous meetings the West Virginia Department of Transportation has requested that this Study be expanded to include a complete evaluation of the need for an additional river crossing. This would include the development of a "Purpose and Need Statement" for use in the environmental process for any project that would come out of the Study. This element would put the project a "step ahead" of the game in the environmental process. In order to accomplish the level of detail the Study includes significantly upgrading the MPO's Travel Demand Model to achieve the proper level of detail for this Study. Please find below a summary of the work to be performed for the Study:

-Travel Demand Modeling including-Enhancing the MPO's Transcad model for time of day travel, a review of the trip distribution assumptions of the model including new origin and destination data, a subarea network review to determine if the model adequately represents small areas, and an estimation of potential transit ridership for potential alternatives as well as validation of the model to the most current standards.

-Access Study

- 1) Review and collection of all pertinent data, including travel time and accident data for the area to assist in the development of a purpose and need statement.
- 2) Development of Purpose and Need Statement-this process will involve using the model to definitively identify if there are crucial transportation network issues that need to be addressed through additional access to I-79 or through some other means.
- 3) Alternative Development and Analysis- Identification and analysis of potential alternatives ability to address needs identified in the Purpose and Need Statement including potential environment and community cohesion concerns.

-Public Engagement-The Study will include a strong public outreach component to identify and include potential stakeholders from the area's communities as well as decision makers who could impact the implementation of the Project.

The full Scope of Work for this Project is included with the Agenda packet. It is respectfully requested that the TTAC recommend that the Policy Board authorize the MPO Director and Policy Board Chairman to enter into a contract with HDR to perform this Study.

-Resolution Supporting the Rails to Trails Conservancy-As you may be aware the Rails to Trails Conservancy has been working with communities in the greater Pittsburgh area to complete a trail network in West Virginia that would connect with the greater Pittsburgh area and ultimately to the Washington DC/Northern Virginia area. This larger network could have a significant impact on our economy. A map of the gaps in West Virginia is enclosed for your information. It is requested that the TTAC consider recommending that the Policy Board approve a resolution in support of this effort. It is anticipated that this Resolution along with resolutions from other communities and groups would be used to seek grants from the US Department of Transportation and other agencies.



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MINUTES

MPO Transportation Technical Advisory Committee Meeting

Morgantown Airport Terminal Building 1st Floor

Morgantown Monongalia MPO Conference Room

January 13, 2015

1:30 PM

Members Present

Rich Wood-MCPC, Brian Carr-WV DOH, Fouad Shoukry-WV DOH, Christopher Fletcher-City of Morgantown, , Bill Austin-MMMPO

Others Present

Jing Zhang-MMMPO

I. Call to Order

Bill Austin called the meeting to order at 1:30 PM

II. Approval of the Minutes

Mr. Austin noted that the minutes of the November meeting were included in the agenda packet. Mr. Austin called for a motion to approve the Minutes. Mr. Fletcher moved to approve the minutes; seconded by Mr. Wood. The motion was unanimously approved.

III. Draft 2015 Calendar

Mr. Austin noted that the Draft 2015 Calendar was included in the agenda package for the committee's review. The Committee accepted the Draft 2015 Calendar as presented.

IV. Draft 2015-2016 Unified Planning Work Program

Mr. Austin noted that the MPO is preparing its FY 2015-2016 UPWP. Major projects that the MPO anticipates undertaking include the completion of University Complete Street Study and the completion of I-79 Access Study. The budget for each study will be divided into this fiscal year and the next fiscal year. Mr. Austin then noted that the MPO will conduct the Westover Pedestrian Improvement Study in house. Mr. Austin went on to note that at no additional cost, the MPO intends to integrate two analysis tools into future project evaluation process. They are the Health Impact Assessment (HIA) and the FHWA INVEST sustainability assessment.

Mr. Carr commented that the scope of University Complete Street Study should be adequately attuned to the transportation related issues to satisfy funding requirements from WV DOH. Mr. Fletcher commented that land-use concerns should be an integrated part of the study to maintain the consistency between transportation facilities and land-use development. Mr. Austin noted that this study will primarily focus on transportation issues and will include a large lane-use component to make sure the plan sustains any land use improvements in the future. He also noted that other aspects that should be emphasized in the scope of work in this project include traffic modeling, impact of changes on Beechurst Ave, and data collection for pedestrian and bicycle traffic. Mr. Fletcher moved to recommend the proposed UPWP for approval by the MPO Policy Board; second by Mr. Carr. The motion was unanimously approved.

Mr. Austin then noted that the MPO is to adjust the contribution to retirement funds from 12.5% to 14%. This adjustment was made to keep the rate consistent with the statewide retirement system, in accordance with the MPO's Policy.

V. Status Report on Greenbag Road Study

Mr. Austin noted that two maps of the Greenbag Rd Study have been included in the agenda to the committee for review. These maps illustrate initially proposed short-term and long-term improvements along the corridor. Also included in the meeting's package is a memo summarizing findings about the time saving benefits of some of the short-term improvements.

Mr. Fletcher noted that the projected population growth area shown in the maps is not accurate, based on current zoning regulations in that area. He also noted that the land adjacent to Lucky Ln and Greenbag Rd is currently under consideration for rezoning to a higher density use. Mr. Carr noted that WV DOH has been informed about the proposed development at the Luckey Ln/Greenbag Rd intersection area, but is uncertain of the actual circulation plan intended by its developer. Mr. Carr also noted that the ongoing study on CR 73 and US 119 would greatly enrich the understanding on how to improve the safety and efficiency at the intersection of Greenbag Rd and US 119. Mr. Austin noted that those identified improvements will be presented to the public for comments and then be further refined by the Steering Committee.

VI. Status Report University Avenue Complete Streets Study

Mr. Austin noted that he is coordinating with stakeholders to develop the scope of work for the University Avenue Complete Street Study and is expecting to work out a contract with the consultant in February.

VII. Status Report I-79 Access Study

Mr. Austin noted that the I-79 Access Study is proceeding and the consulting firm has submitted an initial scope to the MPO for review.

VIII. Other Business

Mr. Shoukry noted that for the coming construction season, WV DOH is to undertake a sidewalk project at the Mountain Line Transit Terminal at Westover and the intersection improvement project at the US 119/VW 7 intersection. Mr. Shoukry also noted that he expects to meet stakeholders of the Mon Blvd Projects to determine a satisfactory site plan and cross section for the project.

Mr. Fletcher asked who is the designated person representing WV DOH in the City's Technical Review Team. Mr. Shoukry noted that he will represent WV DOH in that team.

VIII Adjournment

There being no further business the meeting adjourned at 2:20 PM.

Greenbag Rd Corridor Study Executive Summary

The Greenbag Rd Corridor Study presents an ambitious yet realistic vision for transforming Greenbag Rd into a safe, efficient, and attractive multimodal transportation facility. This report documents the purposes, procedures, findings, and recommendations of the Study. The purpose of the Study is to assist implementation agencies in making transportation investment decisions on Greenbag Rd, with direction on the design concept and scope of projects that best meet the community's needs and interest.

Planning Process

The preparation of this study was recommended in the MPO's 2013-2040 Long Range Transportation Plan as a tier 1 project and developed as an in-house project of the MMMPO Unified Working Program (FY2014-2015). The planning process was guided by the Steering Committee, which consisted of representatives from City of Morgantown, Monongalia County, Morgantown Area Chamber of Commerce, WV Division of Highways, and the community.

The public involvement process included three steering committee meetings, two public meetings, and one stakeholder meeting. A project website was created to provide a platform to publicize the study status, advertise events, distribute documents, and gather community comments. Major themes that emerged from the public process included the need to improve traffic flow and road pavement, correct unsafe road alignment, provide multi-modal transportation options, and enhance community cohesion in the corridor area.

Recommendations

The projects proposed in this study are all designed to work together to achieve multiple aims, regardless of whether they are considered in isolation as roadway widening, intersection improvement, or pedestrian facilities. Project recommendations encompassed four topic areas: 1) roadway (thoroughfare) improvements, 2) intersection improvements, 3) multi-modal improvements, and 4) on-going monitoring of safety and development. Major projects include:

- Widen and resurface Greenbag Rd westbound lane to 12' and eastbound lane to 11', and provide 4' shoulder on both sides of Greenbag Rd. This project is approximately 3 miles long. The planning level cost estimate for this project ranges from 6 million to 10 million.
- At the intersection of Dorsey Ave/Greenbag Rd, add exclusive left-turn lanes and left-turn signal phases on Greenbag Rd (both directions).
- At the intersection of US 119/Greenbag Rd, add an exclusive left-turn lane on Greenbag Rd and optimize traffic signal phases.
- Provide sidewalk on the north side of Greenbag Rd between the Mississippi St and the Mall's western outlet for approximately 3,200 feet.

Major proposed recommendations and their implementation phases are illustrated in Figure 1. Complete project recommendations are included in Section 5. Recommendations. Detailed project description are provided in Appendix G: Proposed Projects and Programs.

Figure 1 Major Improvement Recommendations

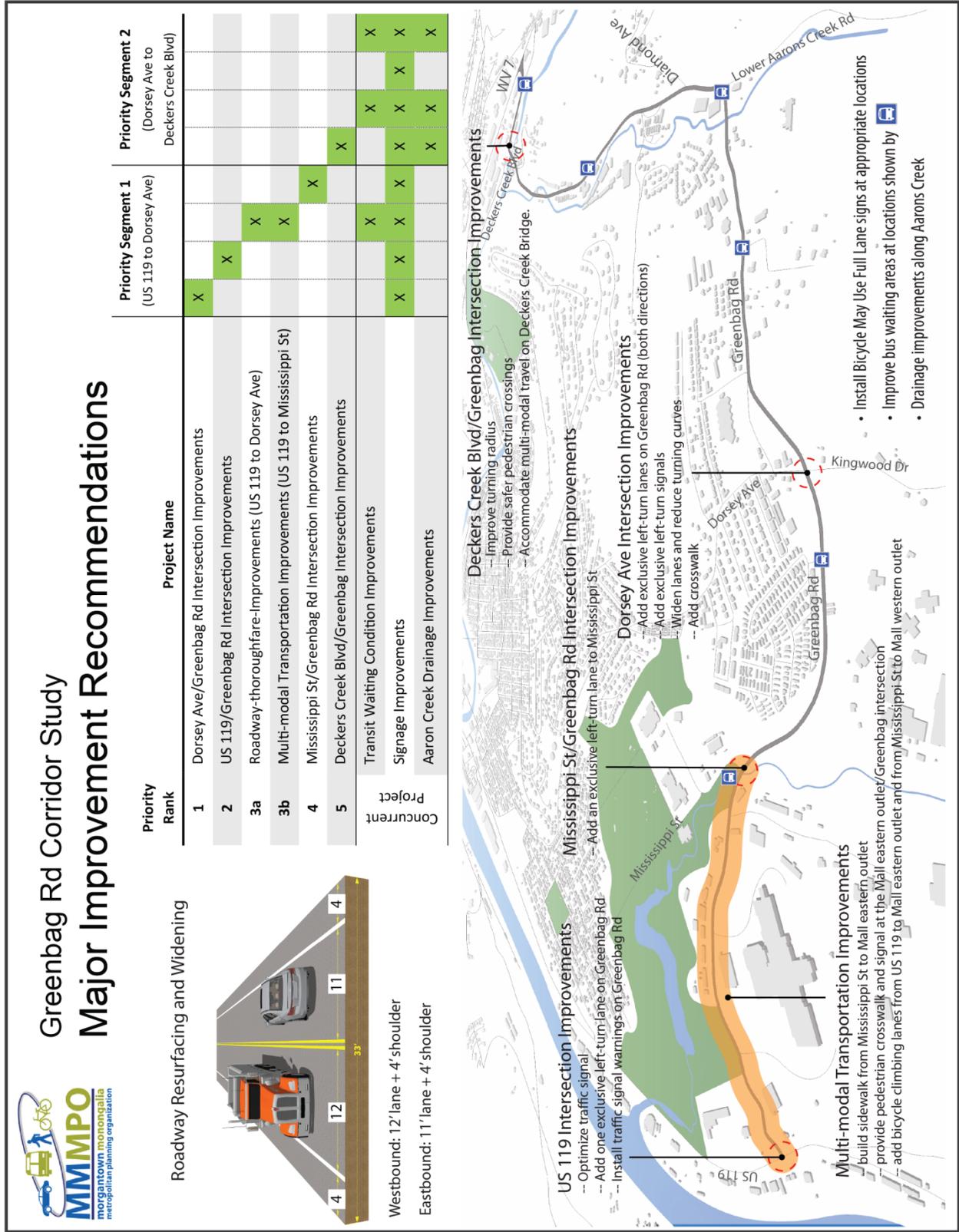


EXHIBIT A

UNIVERSITY AVENUE COMPLETE STREETS CORRIDOR STUDY

Stantec Scope of Work

January 29, 2015

Stantec Consulting has developed the following scope of work for the University Avenue Complete Streets Corridor Study (from Walnut Street to WV 705), approximately 2.0 miles. [However, the area of influence is bounded by WV 705, US 19 \(Beechurst Ave.\), Walnut Street and Willowdale Road.](#) This write-up is in response to the scope of work outlined in the Request for Qualifications (RFQ) and reflects our understanding of the project. Throughout the scope, the Morgantown Monongalia MPO will be referred to as the "Client" and Stantec referred to as the "Consultant." The Project Team will refer to the Client and Consultant together. Paramount in this approach is creating champions for the recommendations contained in the final product, produced through generating an informed consent of the project stakeholders.

As anticipated, the schedule for this study is 8 - 9 months, but is subject to change based on delays outside of the control of the consultant including client review, coordination with outside agencies and scheduling meetings with elected officials.

[A design year of 2025 is assumed for this study.](#)

TASK 1 PROJECT MANAGEMENT

[The](#) Consultant will participate in a kickoff meeting with the Client and other appropriate agency officials to review the scope and schedule for the project, as well as clearly identify project expectations.

A **Project Work Plan** will be developed by the Consultant for the project, complete with a proposed Milestone Schedule and associated contact list. As appropriate, procedures, standards, and guidelines will be provided to project staff to ensure quality control. Stantec will maintain a quality control approach and procedures for the proposed scope of the work.

Stantec will also participate in ongoing coordination with WVU, the County, City, MPO and WVDOH, and will prepare bi-monthly invoices and brief bullet points (as a part of the invoicing). Each report will include task accomplishments and expected upcoming activities.

Project Team Communications

Because of the multi-faceted nature of the project, bi-weekly project calls may be administered to collaborate deliverables and maintain the project schedule. These communications will be primarily between the project management for Consultant and the project manager for the Client, with additional staff and Consultant team members included as necessary.

Task 1 Deliverables:

- Kickoff meeting preparation and attendance.
- Project Work Plan approach and milestone schedule.
- Bi-monthly invoices and progress reporting.
- Project communication

TASK 2 PUBLIC PARTICIPATION

As the cornerstone of the Stantec's planning and design approach, our public involvement process will be continuous, iterative, and tailored to the needs of the University Avenue Complete Streets Corridor. Outreach will be a "two-way street:" the Project Team will work to educate the public on the interrelationship of streets, bicycle and pedestrian facilities; built environment/land use; regulatory controls; and the natural environment; and the public will inform the planning and design process by communicating their core values and guiding principles to the Project Team.

We fully support the Client's desire to assemble a ***Project Advisory Committee*** (PAC) to provide guidance and oversight to the planning and design process for the University Avenue Corridor. We would anticipate that the PAC be comprised of a variety of individuals (no more than 10 – 14) and groups representing a cross-section of community interests and concerns. In addition to the PAC, the Consultant suggests assembling (as determined by the Client) a broader group of organizations who have vested interests in the corridor. We will work with the Client staff to determine the most appropriate mix for the PAC, but anticipate that the following will be included on one or the other (listed in no particular order):

- MPO staff and Technical Advisory Committee members
- West Virginia University
- City of Morgantown planning and engineering staff
- WVDOH
- Chamber of Commerce

- Business and neighborhood associations (formal and informal)
- Emergency Service Providers

Stantec will work with the Client and their constituents to obtain a stakeholder contact list of key individuals, agency representatives, development community, major property owners, and special interest groups that we will solicit participation from during the planning process. This will be accomplished at the outset of the project.

Stantec will attend and facilitate up to four (4) PAC meetings. Economies of scale will be realized on travel, as some of these meetings will coincide with public meeting/workshop trips.

Proactive Outreach. Very few meetings take us to a place we want to go: in-depth, relevant interactions with people that have a deep understanding of a place, and that want to share their ideas for how to make it better. By going out of the meeting space – using traveling roadshows, tagging to existing events, and on-site discussion forums – our proven outreach process generates many more contacts. In so doing, the Consultant can effectively advertise the project, upcoming events, and notify interested parties how to stay in touch using our integrated social media tools. To that end, ***the Project Team will always (a) make sure that there is a decision to make at each and every meeting; and (b) include hands-on exercises like instant polling, chip games, group-to-group competitions, walking/riding tours of the corridor, and so forth.*** We make sure that people want to come back to our meetings in this way – and we always schedule at a meeting location and time that are convenient to the maximum number of participants.

Realizing that one size does not fit all when it comes to public participation, our approach includes a menu of available outreach strategies and techniques. It is our practice to initially identify a number of these techniques to formally incorporate into the public participation program; however, as the project progresses, we will regularly take the “pulse” of the public to determine if our original outreach strategies are yielding the desired results. If not, we will not hesitate to work with the Client to make adjustments through agreed upon “scope swaps.”

The following public participation strategies and techniques will be utilized:

- **Online dissemination of project information** (MindMixer), including a combined survey and interactive mapping application (additional information is provided below). The Consultant will develop, post, and maintain the survey and map; however, it is assumed that links to the survey and map and online hosting/maintenance of other project information will be via the MPO’s existing website with the Consultant providing content in a format that is easily disseminated over the internet (e.g., PDF). The Client

and select PAC representatives (i.e., WVU, City, etc.) will use their listserves and contact lists to notify constituents and bring more awareness to the MindMixer platform.

- A **Project Symposium**, administered as an invite-only but open to the public event will be conducted by the Consultant during the initial phase of the project. The Project Symposium will result in the development of the Guiding Principles and a defined Purpose and Need statement for the study. Assistance from the Client will be necessary to help arrange venues and provide logistical support leading up to the Symposium; the Consultant will manage the meeting and summarize comments received.
- ~~Three~~**One and a half**-day, on-site **design-mini charrette** (planning and design workshop) to collaboratively work with the PAC, stakeholders, and general public (additional information is provided below). Stantec will prepare, attend, and facilitate the ~~charrette~~**work session**. The Client will advertise (public notification) and secure a venue along the corridor.
- **Stakeholder group focus sessions and one-on-one interviews**. These meetings are assumed to coincide with the PAC meetings or public workshop/charrette.
- A **“Walkabout”** along the corridor to better understand context and transitional areas. This activity is expected to occur either with the first PAC meeting or during the project symposium.
- “Rolled up sleeves” **work session** with Client staff. This will occur near the final phase of the study.
- **Public open house** information meeting. Stantec will attend and facilitate a public open house to allow attendees the opportunity to review study results and concept designs. Assumes the public open house coincides with a PAC meeting.

Additional information is provided below for the first three participation strategies. These strategies have been specifically designed by the Stantec Team to provide a higher degree of public/stakeholder engagement than is traditionally found in the corridor study process.

Interactive Mapping Application (Online dissemination)

Social media works when it is fresh, timely updated, and relevant. **MindMixer™** is currently the most powerful off-the-shelf interactive web tool that we will use for generating and exploring discussion threads. It provides users with the opportunity to interact with the project through the use of interactive web mapping, information sharing, document resource areas for the Advisory Committee, and exciting, challenging blog areas to get people talking. This is a great application, especially for the WVU institution where many of the students don't have time or patience to look up a website, but rather prefer quick response social media outlets with which to interact. The problem with most social media outlets, however, is getting people to participate. With this in mind, the Client and select PAC representatives (i.e., WVU, City, etc.) will

use their listserves and contact lists to notify constituents and bring more awareness to the MindMixer platform.

Project Symposium

At the completion of the initial data collection and analysis phase, a Project Symposium will be conducted to allow invited guests (and open to the public) the opportunity to discuss and collaborate on the desired outcomes of the project. This event will lead to the creation of the Guiding Principles, which will be used throughout the planning process. Two interactive activities will be conducted by the consultant. An electronic polling (i.e., **Push Button**) exercise will be administered to solicit feedback on problem areas, design parameters and tradeoffs along the corridor. In addition, the Consultant will conduct an **interactive mapping exercise** to identify specific areas of concern and to share project context. The Client will advertise (public/invitee notification), cater (food/snacks and drinks) and secure a venue for this meeting.

One and a half-day Planning and Design Mini Charrette

After the Consultant conducts the walkabout, site inventory, and data analysis, and develops base drawings, we will work collaboratively with the PAC, property owners, and key stakeholders during a one and a half-day three-day planning and design mini charrette. We will provide a concentrated design workshop for the Consultant to collaborate closely with the PAC and surrounding community. Our approach is for all team members to think in terms of whole systems – Great Streets (i.e., bike, pedestrian, transit, vehicular, streetscape, urban design, land use, etc.) – rather than just within their area of expertise.

A three-phase planning process will be employed for the mini-charrette:

1. **Issues and Identification Phase** – The first evening, we will conduct a public work session where participants will help define “success” as well as validate the guiding principles and vision for the corridor improvements. This will include a series of breakout groups (called “Topics”) that will focus on key design elements that may include wayfinding/branding, development/redevelopment, bicycle/pedestrian/transit, utilities, traffic mobility/access, Complete Streets, emergency service, parks and recreation, and environmental quality and preservation. Throughout this three-day event, neighbors, students, staff, and elected officials, will be able to come into the temporary studio (preferably located on the corridor) to provide ideas, critique our work, and suggest changes; this simply adds value to the plans and designs, provides a credible process, builds excitement for the results, and support for implementation. The Client will advertise (public notification) and secure a venue along the corridor.

2. **Brainstorming Solutions Phase** – ~~the next day, throughout the three-day workshop,~~ ideas will be introduced, vetted, and formalized through data analysis as well as design considerations. All reasonable ideas will be considered. Some ideas will not make it to the second round, while others will be integrated into the overall Complete Streets corridor improvements. A “pin up” session will occur at the end of [day two](#) (the Brainstorming Solutions Phase) to allow participants a chance to review and critique the recommendations while still in a draft form.

~~—Envisioning Success Phase— for many, Complete Streets (and Great Streets) will be a new concept and they may not understand what it means in terms of a real application or how it could change their own choices for travel, health, and quality of life. The Consultant will have landscape architects, urban designers, multimodal planners, and engineers on hand to develop concept designs, typical cross sections, and oblique renderings to help folks visualize the recommendations and potential changes along University Avenue. The third and final evening will conclude with a grand presentation highlighting the vision, collaboration, analysis, and results of the workshop, with another opportunity for the public to interact with team members to provide feedback, make further refinements, and build a consensus on the solutions and design plans.~~

The ~~planning and design mini-~~ charrette is not an end to itself, but rather a piece of the planning process. All information garnered and designs generated during the charrette will be taken back for further vetting and consideration prior to their inclusion in the final documentation. It will be essential to ensure that individual design solutions will work on their own and in combination with one another. Once this vetting and refinement to the concepts and solutions presented at the charrette is complete, a final public open house will be held to present the Draft Final Plan.

Task 2 Deliverables:

- Preparation for and facilitation of four (4) Project Advisory Committee meetings.
- Preparation for and facilitation of stakeholder group meetings and one-on-one interviews (one day) in combination with other meetings. [This will include a meeting with Sunnyside Up representatives.](#)
- Delivery of project information for hosting on Client website.
- Create and maintain interactive web tool (MindMixer) for generating and exploring discussion threads. The site will be maintained for a six-(6) month duration.
- Preparation for and facilitation of a Project Symposium with decision-makers, elected officials and community leaders. Client to extend invites and secure venue.
- Conduct a “Walkabout” along the corridor to better understand context.

- Preparation for and execution of ~~three-day~~ day and a half planning and design mini-charrette. This includes public outreach work sessions and pin-up session. Client to extend invites and secure venue.
- "Rolled up sleeves" work session with Client staff. Stantec to have one attendee at work session.
- Preparation and facilitation of one public open house.

TASK 3 EXISTING CONDITIONS

The Consultant will establish a baseline for analysis and discussion with the public and stakeholders through a review of existing conditions. Existing information will be utilized as much as possible to make the most efficient use of in-field data collection efforts. The Consultant will be specifically responsible for the following:

Land Use, Regulatory, and Infrastructure Context

Land use conditions along the corridor will be assessed and documented, including:

- Generalized existing land use;
- Urban design characteristics;
- Vacant and blighted properties;
- Open space, parks, and conservation areas;
- Drainage and utility infrastructure;
- Historic and environmental resources; and
- Planned/approved development and associated infrastructure improvements (as of November-January 20154), as provided by the Client (City and/or County). This includes digital copies of approved site plans.

Transportation, Traffic, Safety

Transportation Infrastructure and data will be obtained from available sources as noted.

- Three year crash data including vehicular, bicycle and pedestrian (obtain directly from WVDOH and/or WV State Police);
- Pedestrian counts (as conducted by WVU/MPO);
- Traffic volume and classification counts (as available);

- [The Client \(MPO, City and WVDOH\) will c](#)Conduct turning movement counts (AM/PM peak hour) at [ten \(10\)](#) locations (i.e., signalized locations) [along the University Corridor within the study area](#);
- Transit operations and ridership information (obtained from Client and/or Mountain Line Transit); and
- Previous transportation and land use studies along corridor (conducted in the past five years).

Finally, the existing topography and infrastructure context will be documented. It is anticipated that the Client can source aerial photography and LIDAR topographic mapping of the corridor. Additionally, as available, the location, capacity, and availability of electric, communications, water, and sewer utilities will be obtained by the Client. This information will be utilized to determine overall constructability and right-of-way impacts of alternative solutions.

Data Analysis

The Consultant will conduct a thorough, succinct review of existing plans and policies that will influence this project. Our brief summary of these documents/policies will include a title, adoption/revision date, summary, and “contact points” where the existing plans and policies may shape key recommendations for this Study. In terms of data collection, the Consultant will collect and carefully analyze crash data (motorized and non-motorized) and special event travel patterns to determine the source of and solutions to non-recurring delays; create a GPS/GIS-driven data layer of key features throughout the length of the corridor; collect new travel information that impacts recurring delay including travel time runs ([conducted by client](#)) during peak periods, speed study, pedestrian/cyclist activity (available resources), Quality Level-of-Service (QLOS) analysis, and transit ridership data (available resources); and collecting information on human/natural resources and landmarks in the study corridor. The Consultant also proposes to use **pictometry** to capture high-resolution oblique and plan-view aerial imagery of the corridor. All of this information, as well as our preliminary public outreach defining issues, will be used to inform the course of the recommendations, identify performance measures/objectives, and create a context chapter of the corridor workbook that distills current conditions into a document that is readily accessible to the public and decision-makers.

Crash Analysis

Raw crash data will be obtained from the West Virginia State Police for the past three years (2012-2014). Data will be summarized by applicable crash types and crash rates for street

segments or key intersections. This information will be analyzed, including causal factors and field review to identify possible safety improvements.

Quality/Level of Service (QLOS) Analysis

Stantec will also conduct a **Multimodal Level-of-Service Analysis** for bicycle, pedestrian and transit users along the entire length of University Avenue. This qualitative/quantitative analysis relies on field measurements for corridor facilities and is based on the NCHRP Report 616 (Transportation Research Board) standards for Quality/Level-of-Service analyses to measure performance across modes of travel.

Travel Demand Modeling

The Morgantown Monongalia MPO has relatively recently converted its travel demand model from a QRS II platform to TransCAD. The Consultant's first sub-task will be to evaluate the reliability of the regional model for University Avenue. Although much of the University Avenue corridor is largely "built out," there are opportunities for redevelopment (i.e., Sunnyside, etc.). With this in mind, there may be an expectation of limited increases to volumes. With this in mind, we will run the model to produce Base year and Design year (using current model) average daily traffic volumes (ADT), through traffic and V/C ratios. New background ("through") traffic increases will be evaluated for reasonableness prior to identifying forecasted through volumes.

[Part of this effort will be to evaluate the diversion of traffic associated with roadway improvements along the University Avenue corridor, in particular, as it relates to parallel routes like Beechurst Ave., Willowdale Road and WV 67.](#)

Operations

As noted earlier, data collection activities for all modes (where available) of travel will be used to ascertain the quality of operations in the corridor. The Consultant will assess the quality of the modal environments – access to infrastructure like sidewalks, transit stops, and supportive crossing treatments are given equal consideration with traditional vehicular delay measures like level-of-service and volume-to-capacity ratios. This approach helps to ensure that all modes of travel are being evaluated fairly, and the performance is measured broadly in order to craft a truly complete street.

Clearly, we will also need to examine signal operations (up to [ten](#) intersections) for potential improvements, but also simply walking or riding through the corridor yields important insights.

A part of our process is simply “experiencing” the corridor, taking video of activities and issues to share on our website and with the advisory committee; conducting a lighting study (at select locations) to understand where more lighting is needed to support businesses, transit, and high-crash areas; and doing one-on-one interviews with people to pass along their insights and ideas.

Task 3 Deliverables:

- Obtain available land use and transportation data and review
- [The Client to c](#)Conduct turning movement counts at up to ~~four~~ [ten](#) locations along corridor. [All counts should be conducted by April 15, 2015. Consultant to prepare Synchro analysis.](#)
- Obtain LIDAR topographic mapping of the corridor from Client, if available
- [The Client to conduct](#) travel time runs and [Consultant to conduct](#) speed study at select locations along corridor.
- Conduct photo inventory and lighting study at select locations along corridor
- Obtain and analyze three-year crash data
- Conduct QLOS analysis
- Technical Memorandum No. 1 in PDF format providing a brief summary of Land Use, Regulatory, and Infrastructure existing conditions

TASK 4 TECHNICAL ANALYSIS

The Consultant will conduct technical analyses of the information assembled as part of establishing existing conditions in Task 3. These analyses will be multidisciplinary, focusing simultaneously on the multimodal transportation, land use, and context sensitive aspects of the University Avenue Complete Streets Corridor. The opportunities, constraints, and guiding principles obtained through the public participation program will inform and influence the analyses.

Complete Streets Analysis

The multimodal transportation analysis will go beyond the evaluation of motor vehicle performance to provide a comprehensive focus on methods to improve the mobility, safety, and access of the corridor for all users. The quality and potential of the bicycling, walking, and transit environment will be assessed. Complete Streets scenarios will be explored in a context-sensitive manner, cognizant of the limited right-of-way and scenic quality of portions of the corridor.

Methods for improving bicycle and pedestrian connectivity will be of paramount importance to take advantage of opportunities for shorter trips to be made on foot or bike, rather than by automobile. Additionally, potential connections to/from the WVU campus as well as development (like Sunnyside) will be explored. This assumes a half-day team/Client workshop with Stantec staff members in attendance.

Development Trends Assessment

The Consultant will identify and evaluate growth and development trends within and adjacent to the corridor, including land use and demographics that traditionally impact transportation networks. As provided by the Client, the availability of water and sewer infrastructure, surrounding land use, and general demographics data, potential growth areas will be identified. This assessment will be the baseline for the Redevelopment Options in Task 5, which will be used to identify future development opportunities along the corridor (at a systems planning level) to be integrated in the final plan.

Scenario Planning/Community Viz “BaseLine” conditions

A Community Viz model will be developed to test the impacts associated with development and redevelopment within the study area. Community Viz is a modeling software that uses land use parameters (type, density, etc.) to calculate impacts to infrastructure like water, sewer, emergency services and transportation. With this in mind, the Consultant will work with the Client to develop “baseline” conditions for development within the study area. This will include existing and committed (approved) development in the study area. CommunityViz will be used to produce performance metrics for the baseline conditions. Explore and document viable development for selected sites. Develop the two scenarios (baseline and future) using CommunityViz to produce performance metrics as well as generate traffic for each.

Task 4 Deliverables:

- Conduct/assess development trends along corridor
- Attendance of Stantec staff at half-day Complete Streets team/Client workshop.
- Develop CommViz model of “baseline” conditions and report performance metrics

TASK 5 NEEDS ASSESSMENT AND ALTERNATIVE SOLUTIONS

Based on input from the public; MPO, City, and WVU feedback; and the results of the technical analyses performed in Task 4; the Consultant will identify and assess the need for system improvements throughout the corridor. Like the analyses that preceded it in Task 4, this assessment will be multimodal in nature, considering motorists, pedestrians, bicyclists, and transit users. Limitations of the existing transportation network, barriers to connectivity (i.e.,

natural and man-made), and development patterns (existing and projected) will all be weighed so that only realistic and implementable solutions are considered. Alternative solutions will be developed into one Complete Streets Concept Design (see Task 6) for [select locations along](#) the corridor. This exercise will include sketch level graphics (e.g., GIS mapping, conceptual cross sections, and diagrams) sufficient to communicate design concepts to stakeholders and the public.

Congestion Management/Safety

Appropriate traffic demand and operational management strategies will be considered to increase the efficiency of the corridor, make the most of existing capacity, and leverage the most out of recommended improvements. The Consultant will identify and evaluate alternative solutions to alleviate potential congestion and enhance multimodal mobility. The following goals, at a minimum will be considered:

- Improve safety;
- Improve vehicle travel time reliability;
- Operational improvements to increase the efficiency of the system;
- Corridor lighting;
- Sight distance corrections; and
- Traffic and access management solutions (e.g., curb cuts, parcel interconnectivity, etc.).

Complete Streets Scenarios

The following, at a minimum, will be addressed:

- Intersection treatments and laneage improvements will be examined, including a combination of typical cross-section types based on right-of-way limitations and context sensitivity.
- Complete Streets solutions will be considered along the entire corridor, allowing more users, regardless of mode, age, or ability, to have comfortable access and mobility along the corridor and to destinations beyond.
- Connecting the WVU campus to surrounding residential and commercial areas will be considered along with various options for on-road, adjacent to road, and shared-use pathway bicycle and pedestrian facilities.
- Balancing the topographical challenges with infrastructure improvements; opportunities for landscaping, beautification, gateway treatments, and wayfinding will be explored.

- Potential regulatory controls will be assessed, including innovative methods to regulate character and style of land uses.
- Where appropriate and viable, non-traditional solutions will be reviewed and evaluated, including traffic operations/control, pedestrian separation, innovative intersection treatments, roundabouts, and adjacent shared-use pathways, Concepts including but not necessarily limited to the following may be considered: "square loop" intersection designs, channelizing left turns, median use, HAWK signals, mid-block treatments, bike boxes, cycle tracks, sharrows, buffered bike lanes, high visibility crosswalks, textured/pavers raised crosswalks, pedestrian countdowns, signage, and lighting.

Grumbein's Island

Grumbein's Island has been a focus of many traffic and pedestrian studies in the past. As a point of conflict between pedestrians and vehicles, this section of University Avenue continues to be a focal point and issue of contention for the WVU and the City. With this in mind, the Consultant Team will conduct an evaluation of this area (part of the data collection efforts) to determine a preferred improvement scenario as a part of the University Avenue Complete Streets corridor study. This effort will entail a review of the latest studies (including the current WVU initiative ~~of creating an "open shared space"~~ as well as the previous plans ~~for constructing a pedestrian separation~~), a detailed crash analysis based on available/recent data, an analysis of trade-offs between competing recommendations and the development of a modified option (if necessary) that includes alternative design treatments. This analysis will result in the selection of ~~alternative preferred~~ design treatments that will be included in the Corridor Concept Design (Task 6). The Client will provide the previous plans and studies to the Consultant for this task.

Redevelopment Options

~~The Consultant will identify potential redevelopment opportunities that reinforce goals and guiding principles for the corridor. We will begin with a series of in-depth interviews with the City, University, Sunnyside Up, the hospital and local institutions, local developers and brokers, and similar "redevelopment stakeholders." Based on the interviews and research (Task 4) we will provide an Assessment of Market Demand for relevant potential uses (student housing, other housing, office, retail, and uses identified by stakeholders). The team will use this Assessment to identify potential redevelopment scenarios and select preferred uses for key sites. The Consultant will work with the Client to identify up to three catalyst sites and will work with the team's urban designers to create development options, determine financial feasibility, and identify public/private/institutional strategies to cover feasibility gaps for these redevelopment options.~~

Scenario Planning/Community Viz “Build” conditions

Using the Community Viz model developed in Task 4, the Consultant will work with the Client to identify the “Build” conditions for development within the study area. This will involve a work session dedicated to identifying significant areas of anticipated development and redevelopment. The Consultant will explore and document one viable development scenario. CommunityViz will be used to produce performance metrics as well as generate traffic for the Build condition. The associated traffic will be used to identify potential impacts to the transportation network.

Task 5 Deliverables:

- Develop Grumbein’s Island analysis (up to three options) and recommendations
- Develop CommViz model of “Build” conditions and report performance metrics and traffic impacts
- Stantec will develop Technical Memorandum II in PDF format summarizing alternative solutions, including sketch level graphics (comments received on technical memoranda will be addressed in the final documentation for the study; individual technical memoranda will not be revised retroactively).

TASK 6 RECOMMENDATIONS

Transportation solutions will be crafted for meeting the 10-year horizon needs of the corridor and its constituents. Multimodal solutions will be devised that provide consideration to their effectiveness within current and approved development scenarios. Low-level, high-resolution photography will be utilized to produce oblique aerial photo simulations, which will be used to depict proposed transportation improvements. Other visualization products will be included to best communicate the intent of each solution, including plan view renderings, typical cross sections, and concept designs. While visualizations will be conceptual in nature, sufficient detail will be provided to communicate the relationship between design and streetscape improvements.

At a minimum, recommendations will:

- Reflect community values and guiding principles;
- Minimize environmental impacts as documented in the constraints mapping exercise;
- Be guided, understood, and supported by the public through the public participation process;
- Be supported by stakeholder groups and decision-makers;
- Be economically feasible;

- Outline opportunities and incentives for partnerships and community investment;
- Conform to applicable laws and regulations; and
- Include multimodal transportation solutions.

Concept Designs

The Consultant will work collaboratively to bridge planning concepts to engineering through our “preliminary design” approach which has two phases and integrates well with previously mentioned outreach efforts and the design charrette workshops.

Phase I includes the development of a ***Preferred Access Plan***. This phase includes the collection and analysis of data, field measurements, operational analysis, identification of design constraints, and assessment of needs (Tasks 3-5). Design considerations and corridor context such as the items listed below may be part of the assessment.

- Streetscape character;
- Transportation/public transit/parking conditions (if applicable);
- Circulation, traffic patterns, and volumes;
- Safety analysis (frequency, severity, causal factors and modal);
- Storm drainage systems;
- Corridor assets: park land, civic, residential, businesses, and other destinations;
- Topography, vegetation, views;
- Utilities and infrastructure;
- Environmental quality;
- Signage system;
- Signals; and
- Other physical infrastructure.

The Preferred Access Plan (plan view), represented through a schematic mapping exercise, will identify the baseline corridor improvements relative to multimodal connectivity (i.e., streets, greenways, connectivity), access considerations, access control (e.g., use of medians), and innovative intersection treatments using symbology and GIS linework. GIS mapping and renderings will be used to develop the schematic mapping to enhance the clarity of the information presented visually. Ultimately, this information will be used by the Consultant, stakeholders, and decision-makers to better understand how the entire system (both within the right-of-way and beyond) will function from a multimodal standpoint.

Phase II of the design process will involve the development of a **Corridor Concept Design** (CADD plan view and streetscape). The concept design will build on the vision and recommendations reflected in the Preferred Access Plan with a focus on the corridor itself. Our engineers and CADD designers will develop 20%-30% design concepts [for critical areas and intersections along the corridor](#). Together this information will be used to identify the physical footprint and relative impacts of the University Avenue corridor improvements. Design features may include/incorporate:

- Recommendations for transportation infrastructure changes to improve traffic movement and pedestrian/bicycle safety (e.g., greenway connections, sidewalks, high visibility crosswalks, bike boxes, pedestrian level lighting, pedestrian countdown signals, etc.);
- Transit provisions as appropriate (i.e., bus pullout, shelters, etc.);
- Traffic calming strategies and physical changes to create pedestrian and bicycle friendly interfaces (e.g., median use, splitter islands, Hawk Signals, etc.);
- Streetscape features including incorporation of “Gateway” opportunities (e.g., street trees, gateway treatments, etc.);
- Access management (e.g., driveway improvements/consolidation, cross access, etc.); and
- Safety and security (e.g., site triangle improvements, lighting recommendations, etc.).

[Part of this effort will be to develop concept plans for the select intersections within the study area as well. These intersections may be independent of the University Avenue corridor.](#)

Phased Construction Plan

Based on the Corridor Concept Design, Stantec will develop an order of magnitude probable construction cost estimate for budgetary purposes. Stantec will also have its traffic control and construction specialists review the concept design plans to determine the best approach to phasing the implementation and construction activities. This assumes input from the WVDOH or City on utility and ROW costs.

Corridor Overlay District

Regulating development decision along the corridor after the concept designs have been endorsed will be essential to the success of the project. With this in mind, the Consultant will work with the City to develop a corridor overlay district that may include regulatory measures such as right-of-way encroachment measures, access management guidelines, spacing

standards and protocols for development and redevelopment. This deliverable is a brief narrative with a appropriate language that can be endorsed or adopted by the City.

[Part of the overlay district will include development design characteristics for future development along the corridor. This does not pertain to the type of development, but, rather the design characteristics, which may include scale, character, massing, footprint, setbacks, and style. This effort will include a review of existing code requirements.](#)

Funding and Financial Strategies

The Consultant will identify and develop potential funding strategies to implement the transportation infrastructure and development/redevelopment opportunities developed as a part of this study. [This effort will include an analysis of benefit-cost for the physical infrastructure improvements. This may include the anticipated return on investment for incidental development that may occur as a result of the improvements to the University Avenue corridor.](#)

Implementation Plan

Stantec will develop an implementation plan complete with priorities, phasing, cost estimates, partnering agencies/groups, probable permitting requirements, and potential funding sources/strategies to assist in moving recommendations from vision to reality.

Task 6 Deliverables:

- Develop Preferred Access Plan
- Develop Corridor/[Intersections](#) Concept Design in CADD format
- Develop phased construction plan
- Document Funding/ Financial Strategies, [cost-benefit analysis](#) and Implementation Plan

TASK 7 DOCUMENTATION

Stantec will combine the technical memoranda prepared in previous tasks along with addressing comments received on these individual memoranda, to create a University Avenue Complete Streets Workbook for review and comments by the Client. The Workbook will be developed as a brief and concise document with illustrative graphics and imagery to provide an overview of the context, stakeholder outreach, analysis, results and recommendations for the study. One set of

combined comments will be provided to the Consultant for final edits. Following review and receipt of comments, a Final Workbook will be issued and presented to the MPO Policy Board.

Task 7 Deliverables:

- Develop Draft Workbook in PDF format.
- Develop Final Workbook in PDF format.



March 5, 2015

Mr. Bill Austin, AICP, Executive Director
Morgantown Monongalia MPO
82 Hart Field Road, Suite 105
Morgantown, WV 26505

Re: I-79 Access Study
Morgantown, West Virginia
Revised Fee Proposal

Dear Mr. Austin:

Enclosed is our revised fee proposal based on discussions on March 3, 2015. This project includes the preparation of an Access Study for a new connection between Morgantown's urban core and I-79/area west of the Monongahela River.

We appreciate the opportunity to submit this proposal. We look forward to beginning work on this project upon receiving Notice to Proceed. If you have any questions on this proposal, please do not hesitate to contact us.

Sincerely,

HDR ENGINEERING, INC.

A handwritten signature in black ink that reads "Michael P. Crall".

Michael P. Crall
Vice President

A handwritten signature in black ink that reads "Amy Balmer Staud".

Amy Balmer Staud, P.E., PTOE
Associate Vice President

Enclosures

I-79 Access Study

Morgantown, WV

March 5, 2015

Exhibit A – Scope of Work

Exhibit B – Fee Summary

Exhibit C – Hourly Rate Certification

Exhibit D – Subconsultant Fee Proposal

Exhibit E – Division's Indirect Cost Desk Review Memo

HDR Engineering, Inc.
2416 Pennsylvania Avenue
Weirton, WV 26062-3639

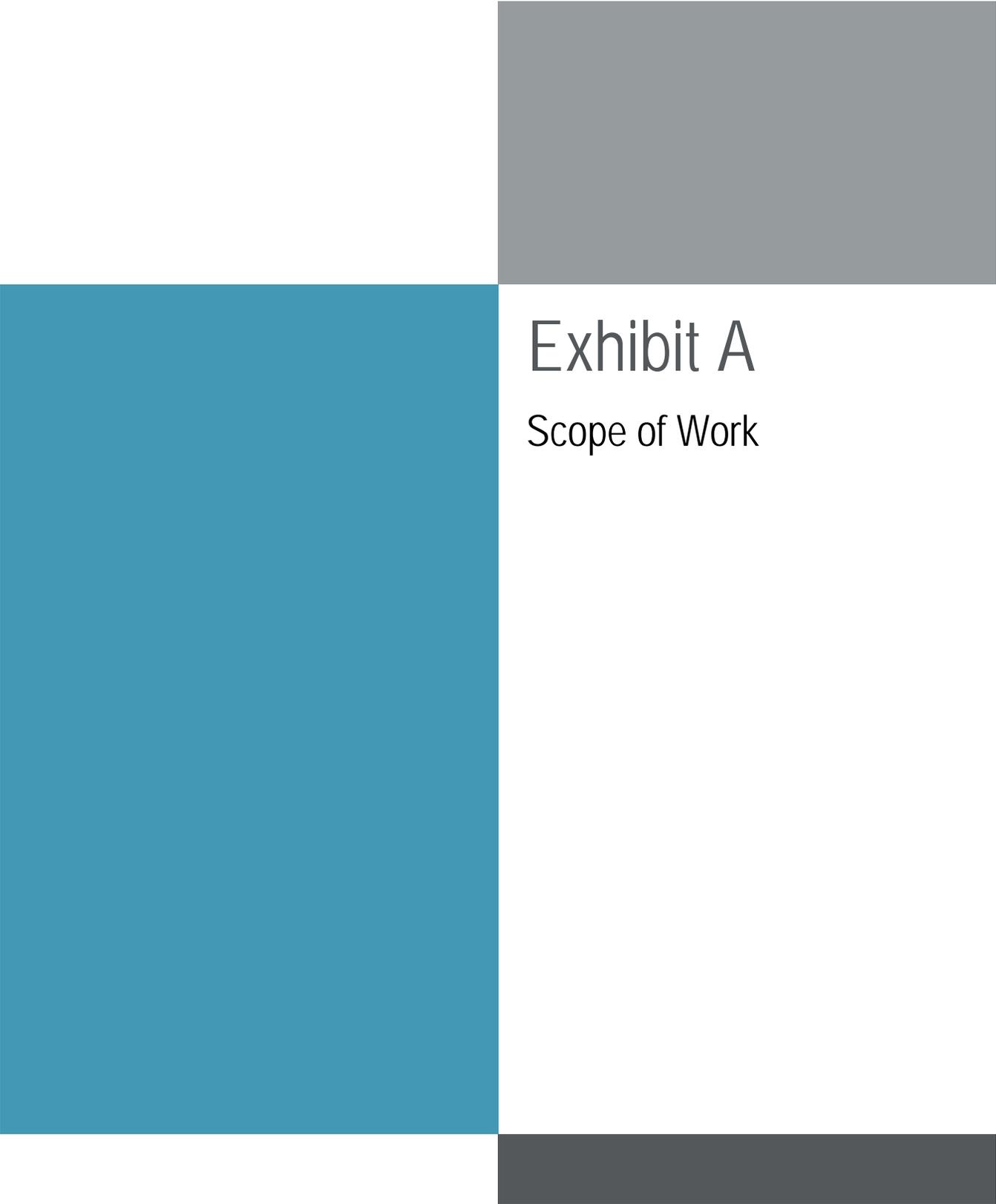


Exhibit A

Scope of Work

EXHIBIT A SCOPE OF WORK

Introduction

This scope of work is based on HDR's understanding of the project, the Request for Qualifications (RFQ) and discussions held on December 16, 2014 and email dated February 8, 2015.

The purpose of this project is to prepare an Access Study which will evaluate the need for an additional connection between the area's urban core and I-79/area west of the Monongahela River. The urban core is defined as the general downtown area of Morgantown. The Morgantown Monongalia Metropolitan Planning Organization (MMMPO) identified three potential alternatives (Project 6 Option A, B, and C) in their most recent long-range transportation plan update. This Access Study will include updating the Travel Demand Model (TDM), developing a purpose and need, identifying and evaluating potential alternatives and facilitating a robust public engagement program. HDR has engaged Alpha Associates (Alpha) to assist with the evaluation of alternatives and public engagement. The project is to be completed within one year of the notice to proceed.

The study area for this project is defined as Monongalia County from the West Virginia/Pennsylvania State Line in the north to I-68 in the south. The western boundary is I-79 and the eastern boundary is the urban core of Morgantown.

1. Travel Demand Modeling

1.1. Time of Day Model Enhancement

To model the effects of peak period travel conditions, HDR will update the MMMPO TransCAD travel demand model to incorporate a time-of-day element into the modeling process. The specifics of this model element will be worked out with MMMPO staff after HDR staff have reviewed the current model and available data sets, but at a minimum it is assumed that the time-of-day element will include:

- Applying time-of-day and directional factors to create time-of-day trip matrices prior to the traffic assignment step, using the current daily trip generation and trip distribution methods and outputs. It is assumed that sufficient data will be available to develop four (4) time-of-day periods.
- Developing time-of-day and directional factors by trip purpose, according to available data, including hourly traffic counts, parking and class time data



available from WVU, National Household Travel Survey (NHTS) data, and NCHRP Report 716.

- Reviewing peak period traffic assignment output against available peak period and daily traffic data for goodness of fit, based on guidance with those documented in the 2040 LRTP's "Travel Demand Model Performance Memorandum" document. The validation checks provided in that document include:
 - Comparison of Model Assignments and Counts by Volume Group
 - Scatterplot and r-squared assessment of Model Assignments and Counts
 - Comparison of Model VMT and Count VMT by Functional Classification
 - Percent RMSE by Functional Class and by Count Group

1.2. Trip Distribution Review

HDR will work with the MMMPO to acquire AirSage mobile phone origin-destination data for the study area at the district level and review trip distribution output from the travel model. It is assumed that the mobile phone O-D data would fit into approximately 50 districts for the MPO area, based on aggregations of the transportation analysis zone (TAZ) boundary data and appropriate external stations. The travel model trip distribution performance would be compared to mobile phone O-D data, and the potential model updates would include:

- Review of trip length distribution by trip purpose, potentially adjusting input friction factors to adjust trip lengths.
- Review of origin-destination patterns to and from WVU campuses and other major generators.
- Review of major traffic flows across major screenlines in the study area, including the external cordon and the Monongahela River, to determine if there are additional trip distribution parameters that can be adjusted.

1.3. Subarea Network Review and Update

In the study area corridors, HDR will review input speeds and capacities along arterial corridors in our study area, based on available data. The network review and update will include:



- Review of network detail to ensure that all reasonable study area street corridors are reflected in the model network, and that appropriate TAZ access levels are provided.
- Limited updates to the travel model TAZ structure. It is assumed up to five (5) additional TAZs might be subdivided / added to the model as a part of this enhancement. It is assumed that MMMPO staff would provide the socio-economic data adjustments for any subdivided TAZs for all scenarios, and that HDR's effort will include recoding the model highway network and limited script updates to account for any TAZ additions.
- MMMPO staff will collect travel times through major corridors during peak and off-peak conditions while WVU is in session as described in Section 2.2.

1.4. Travel Model Application

Once the travel model updates described above have been implemented, HDR will summarize validation statistics. HDR will use validation statistics consistent with those documented in the 2040 LRTP's "Travel Demand Model Performance Memorandum" for both peak period and daily traffic. Example validation statistics were provided in Section 1.1. In addition, HDR will add a user interface to the MMMPO model to represent each step of the model flow.

HDR's Travel Demand Modeler will present the model validation and performance to the MMMPO and Technical Committee prior to developing the alternative models. It is assumed this presentation will occur during a regularly scheduled Technical Committee Meeting.

HDR will use the updated travel model to develop traffic forecasts for the scenarios evaluated in this study. While no explicit mode split application or transit forecasting component is anticipated in this study, the changes we implement will provide the flexibility to make a future mode choice enhancement to the travel model. For the I-79 Access Study, HDR will estimate potential bus ridership for the alternatives being screened. This process will estimate potential ridership ranges, outside of the MMMPO model process, by attempting to correlate ridership characteristics to existing travel markets and service levels in the Morgantown area using the following data:

- Outputs from the travel model, including the trip table.



- Mountain Line ridership data, including any available boarding / alighting data by stop and ridership by route.
- Published data on ridership elasticities.
- Screening of subarea walkability for access to transit stops.
- Census data to provide an assessment of potential transit market.

2. Access Study

2.1. Site Visits

HDR will conduct a total of two (2) site visits, with two (2) HDR and one (1) Alpha representative to gather pertinent data and photographs regarding the study area. It is anticipated the first visit will take two (2) days and the second visit will take one (1) day.

2.2. Data Review and Collection

Data Review

HDR will conduct a detailed review of the available information, including previous studies, for use in this study. A brief Technical Memorandum will be prepared for each study/plan to document how the studies impact this project. Following is an anticipated list of information along with the anticipated source in parentheses:

- 2040 MMMPO Long Range Transportation Plan (MMMPO website) (HDR)
- Various Project Studies (MMMPO website) (HDR)
- Comprehensive Plan for the Planning Districts of Monongalia County (Monongalia County Planning Commission website) (Alpha)
- City of Morgantown Comprehensive Plan (City website) (Alpha)
- WVU Campus Master Plan (WVU website) (Alpha)
- Traffic count data (requested through WVDOT) (HDR)
- Existing TransCAD model (MMMPO) (HDR)
- Crash data (requested through WVDOT) (HDR)
- GIS data (GIS-T website) (HDR)
- Other relevant studies (MMMPO) (HDR and Alpha)

Crash Data Analysis

HDR will prepare crash rates for the major routes to and from the urban core to I-79. These rates will be compared to the latest statewide averages. These routes include:



- US 19 and CR 19/24 from WV 705 to I-79 interchange (Star City)
- WV 7 from WV 705 to US 19 (Westover Bridge)
- US 19 from WV 7 to I-79 interchange (Westover)
- Up to two (2) additional corridors based on the alternatives developed

Travel Time Runs

The MMMPO staff will collect travel time runs during the AM, mid-day, PM, and off-peak periods for designated corridors from the urban core to I-79. The data will be provided to HDR in a format that summarizes the termini, travel time, speed, etc.

GIS Database

During the proposal phase, HDR obtained readily-available GIS data from the WV GIS Technical Center (GIS-T) website. HDR will check for updates to these data and obtain other pertinent data from readily-available sources including the MMMPO, WVDEP, EPA, US Census Bureau and GIS-T websites. These data will be used to develop a base map illustrating known constraints.

2.3. Develop Purpose and Need Statement

HDR will develop a purpose and need statement to address overall vision and goals of the project as per discussions with the Technical and Stakeholder Committees and input from the Public Involvement. It will also address the deficiencies documented in the Existing and Future Conditions Report. The purpose and need will establish the basis for developing reasonable alternatives and assist in evaluating alternatives.

The Purpose and Need will be submitted to the MMMPO as an electronic Technical Memorandum for distribution and review by the Technical Committee. The Purpose and Need will be revised to address comments received from the Technical Committee.

2.4. Alternative Development

Based on the results of the Existing and Future Conditions Report, other technical studies and input from the Public Involvement, HDR will identify alternatives to address the purpose and need of the project.

HDR will work with the Technical Committee to develop conceptual alternatives to meet the issues and purpose and need for the study. Conceptual alternatives that have been developed to date in the MMMPO's 2040 Long Range Transportation Plan, as well as other alternatives that meet the purpose and need will be identified for



analysis. Up to five (5) conceptual alternatives will be developed plus a Transportation System Management (TSM) strategy (signal coordination, turn lanes, etc.) and no-build will be included. The five (5) alternatives include the following (note, these may be modified based on input during project development):

- MMMPO Alternative 6A: West Run Extension to US 19.
- MMMPO Alternative 6B: Roadway connection from Monongahela Boulevard to new I-79 interchange.
- MMMPO Alternative 6C: 8th Street bridge to new I-79 interchange.
- US 119 from I-68 to downtown.
- To be determined.

These alternatives will be illustrated on mapping developed as part of the GIS database task.

2.5. Alternative Analysis

Our first step in the alternatives analysis will be to determine if there are significant impacts or fatal flaws that would require the alternative to be eliminated. If any of the alternatives that have been identified are to be eliminated, documentation will be provided of the conceptual solutions that have been eliminated and justification for that elimination based on the impacts.

HDR will work with MMMPO and WVDOT to develop design year traffic for the alternatives. HDR will coordinate with the MMMPO and WVDOT in the development and evaluation of assignments for the travel demand model. HDR will establish opening year (to be established) and design year traffic (20 years from opening year) for the conceptual alternatives. HDR will calculate corridor-level level of service (LOS) or volume to capacity ratios (v/c) of the alternatives for opening year and the design year.

HDR will begin with conceptual solutions that will be in broad band corridors or areas. Footprints for each alternative will be developed based on a desired typical section to determine the feasibility and cost of the improvement. Following this analysis, the team then will document the data, impact, cost, benefits, etc. for the alternative. This will consist of field observations, modeling output, analysis of GIS data, and stakeholder and public input. A matrix of the alternatives will be developed to compare the impacts (traffic operations, environmental impacts, right of way impacts, cost,



benefit cost analysis etc.) of the alternatives and will be presented to the Technical Committee and Stakeholder Committee during one of the regularly scheduled meetings. The benefit cost analysis that will be conducted for the alternatives will include a methodology that is similar to the methodology currently used by the WV DOT to compare long range plan projects. HDR will review funding sources to determine the benefit cost analysis that is required by the funding source applications.

This information will be used for a screening level evaluation of the identified corridors. Criteria will be established for measuring the effectiveness (MOEs) of each alternative in addressing the needs of the study area. Through a cooperative process with the Technical Committee, a set of evaluation factors will be developed, along with relative weights, for reviewing and comparing alternatives. Following the screening evaluation for the alternatives using the weighted MOEs, HDR will present the findings to the project team, Technical Committee, Stakeholder Committee, and public for comment.

Following the input, HDR will finalize the recommendations and prepare the Final Report. These recommendations will be presented to the project team, Technical Committee and Stakeholder Committee. As part of this recommendation, HDR will provide the stakeholders with guidance in developing overall strategies, resource requirements, project work plans, and technical approaches. The final recommendations will be presented to the public.

No interchange modification or justification study (IMS/IJS) is assumed. There are no hours for a structure type, size, and location (TS&L) studies; line and grade; or other detailed engineering studies. No work has been assigned for pavement buildup, pavement markings, or lighting for the alternatives.

2.6. Environmental Red Flag Analysis

HDR will prepare an environmental red flag analysis using the GIS data for up to five (5) alternatives. The alternative footprints will be developed based on an assumed planning-level roadway typical section (may include travel lanes, shoulders, possible medians, possible bike lanes, possible transit stops, and possible pedestrian paths) with allowance for required right-of-way.

The impacts of each alternative will be summarized in a table for comparison. Any red flags which should be considered as the project progresses, i.e. proximity to a historic



district, potentially significant impact to species or natural resources, air quality benefits or impacts, will be identified.

3. Public Engagement

3.1. Project Website

HDR will develop, host and maintain a project website which can be linked from the MMMPO's website site. The website content will include:

- Project overview
- Schedule
- Monthly project updates
- Public Meeting displays and handouts
- Public Comment form
- Reports

Prior to making content available for public viewing, HDR will coordinate with the MMMPO for approval of content. After completion of the project, HDR will provide the content to migrate the website to the MMMPO's website.

As an example of a project website developed by HDR, below is a link to the Danville Water Treatment Plant project. It is anticipated this project website would be similar in structure, content, and complexity.

<http://www.danvillewtp.com/>

3.2. Technical Committee Meetings

A Technical Committee (TC) will be established to provide technical guidance, input, and feedback on the project. HDR and Alpha will make recommendations to the MMMPO for potential TC membership. HDR and Alpha will facilitate monthly meetings and other special-purpose meetings on behalf of the team. This includes the following:

- Prepare and send calendar notices for meetings (Alpha).
- Prepare sign-in sheets and meeting notes (Alpha).
- Prepare agenda and handouts (HDR).
- Facilitate meeting discussions (Alpha).

For estimating purposes, three (3) meetings are assumed. It is assumed all Technical Committee meetings will be held at either the MMMPO's office or one of their partners at no expense to this project.



3.3. Stakeholder Committee Meetings

A Stakeholder Committee (SC) will be established to provide input, and feedback on the project. HDR and Alpha will make recommendations to the MMMPO for potential SC membership. HDR and Alpha will facilitate six SC meetings and other special-purpose meetings on behalf of the team. This includes the following:

- Prepare and send calendar notices for meetings (Alpha).
- Prepare sign-in sheets and meeting notes (Alpha).
- Prepare agenda and handouts (HDR).
- Facilitate meeting discussions (Alpha).

For estimating purposes, three (3) meetings are assumed. It is assumed all Stakeholder Committee meetings will be held at either the MMMPO's office or one of their partners at no expense to this project. We anticipate that the SC meeting will be held either before or after the TC meetings in order to efficiently utilize the resources of the team.

3.4. Public Meetings

Public meetings will be held to gain input and concurrence with the general public throughout the project. HDR and Alpha will facilitate the public meetings and will recommend the agenda to the MMMPO for each meeting. It is anticipated that three (3) meetings will be held at locations convenient to the general public without costs to the project.

- Public Meeting #1: The initial meeting will be an information gathering meeting to assist in determining the concerns of the public as it relates to the project. The feedback from this meeting will assist in identifying the goals, vision, potential alternatives, and purpose and need of the project.
- Public Meeting #2: The second meeting would occur after the alternatives have been evaluated and red flags have been identified.
- Public Meeting #3: The final public meeting held to share the results of the study and obtain any final feedback of the recommendations.

HDR and Alpha will maintain the records of the meetings as well as develop the necessary source material for the successful implementation of the public information process. Specific tasks for each meeting include:

- Prepare public advertisement (Alpha).



- Prepare sign-in sheet (Alpha).
- Prepare handout, comment form and display boards (HDR).
- Provide staff for sign-in table (Alpha).
- Provide staff for display boards (HDR and Alpha)
- Consolidate meeting comments (Alpha)

3.5. Informal One-on-One Meetings

It may be necessary during the process of this project to have additional meetings individually with major stakeholders in order to gain additional insight or information regarding particular concerns an organization may have. All such meetings shall be arranged with the resources of the team in mind to coincide with other regularly scheduled meetings. It is assumed up to five (5) one-on-one meetings will be required.

3.6. Presentations to the MMMPO Board

Presentations to the MMMPO Board will coincide with regularly scheduled meetings of the TC and/or SC and will serve to update the Board on the progress of the project. It is assumed up to two (2) presentations to the MMMPO Board will be required.

3.7. Presentations to the WVDOT

At critical stages of the project, HDR will provide status updates to the WVDOT Deputy State Highway Engineer for Programming and Planning and other staff through two (2) presentations. HDR will provide all necessary handouts and prepare meeting notes to document discussions and comments.

4. Report Preparation

Work under this task includes summarizing the analyses for the existing and future conditions, discussing the development and evaluation of the alternatives, and preparing appropriate appendices.

4.1. Existing and Future Conditions Report

Based on the MMMPO's travel demand model and other background information, HDR will prepare an Existing and Future Conditions Report. The purpose of this report is to document issues and deficiencies which will be used as a guide for developing the purpose and need for the project and ultimately reasonable alternatives. The Existing and Future Conditions analysis will assume that this project is not included in the MMMPO's Long Range Transportation Plan, i.e. the "No Build" scenario. It is anticipated the following information will be documented:

- Known issues and constraints.
- Summary of Data Review relevant to this project.
- Corridor-level Level of Service and/or volume to capacity ratio.
- Travel times along existing routes from the urban core to I-79.
- Sub-area vehicle miles traveled.
- System-wide crash data.
- Issues identified through the Technical Committee, Stakeholder Committee, and Public Meetings.

Fifteen (15) copies of the Report will be submitted to MMMPO for distribution and review by the Technical Committee. An electronic version will also be provided in pdf format.

4.2. Draft Report

HDR will prepare the Draft I-79 Access Study Report to summarize the alternative analyses, MOEs, red flag summary, impacts, opinions of probable cost, and evaluation matrix. The report will be prepared in an 11"x17" format. Note, it is anticipated that a recommended alternative will not be included in the Draft Report. The Draft Report submission will contain the following items:

- Executive Summary
- Existing and Future Conditions
- Purpose and Need



- Alternatives Identification
 - Description
 - Typical Section
 - Multi-modal accommodations
- Alternatives Analysis
 - Red Flag Summary
 - Evaluation Matrix
 - Planning level cost estimate
- Public Meeting #1 Summary
- Summary
- Appendices

Fifteen (15) copies of the Draft Report will be submitted to MMMPO for distribution and review by the Technical Committee. An electronic version will also be provided in pdf format.

4.3. Final Report

HDR will prepare the Final I-79 Access Study Report to summarize the alternative analyses, red flag summary, impacts, opinions of probable cost, and evaluation matrix. The report will be prepared in an 11"x17" format. The Draft Report submission will contain the following items:

- Executive Summary
- Existing and Future Conditions
- Purpose and Need
- Alternatives Identification
 - Description
 - Typical Section
 - Multi-modal accommodations
- Alternatives Analysis
 - Red Flag Summary
 - Evaluation Matrix
 - Planning level cost estimate
- Public Meeting #1 and 2 Summary
- Recommendations and Summary



- Appendices

Fifteen (15) copies of the Final Report will be submitted to MMMPO for distribution and review by the Technical Committee. An electronic version will also be provided in pdf format.

5. Project Administration

HDR will assign a project manager to be in charge of the overall management of this project. The project manager will be responsible for coordinating all in-house activities, as well as acting as the liaison with the MMMPO and WV DOT, as required. Administrative work will include invoice preparation, accounting, secretarial work, and management functions performed by department, section and project managers and project engineers. For this proposal, twelve (12) months of project administration activities and invoicing have been assumed.

PROJECT MILESTONES

For proposal purposes, HDR has developed the following major milestones.

Anticipated Notice to Proceed.....	February 2015
Existing and Future Conditions Report	May 2015
Public Meeting #1.....	May 2015
Receive comments (Report & Public Meeting)	June 2015
Draft I-79 Access Study Report	November 2015
Public Meeting #2.....	November 2015
Receive comments (Report & Public Meeting)	December 2015
Final I-79 Access Study Report	February 2016
Public Meeting #3.....	February 2016

GENERAL ITEMS

HDR will not proceed with any work on the project considered to be beyond the scope, complexity, or character of the work established for the project at the time the original Agreement is entered into without written approval from the MMMPO and Division. Any modification to the scope of work will be by Supplemental Agreement.

SAFETY

HDR has always been committed to providing our employees with a safe and healthy workplace. No activity conducted by HDR employees is so important that we cannot afford to conduct the activity in a safe and healthful manner. HDR has developed a Corporate Health and Safety (H&S) Program that was prepared to provide employees with information on the safe completion of project activities, and information on H&S hazards in the workplace. The Corporate H&S program is in full compliance with the Occupational Safety and Health Administration (OSHA). Adherence to the requirements of OSHA and the HDR H&S Program is considered essential for the protection of HDR employees and to minimize exposure to health and safety hazards. HDR training for the H&S program is administered to staff and is accounted for in the accounting audit under Allocated Expenses. For this project, in accordance with OSHA and the HDR H&S Program, no special costs are anticipated to be incurred.



Exhibit B

Fee Summary



SUMMARY BY CLASSIFICATION AND TASK

	Principal	PM/Senior Engineer	Engineer/Planner	Jr Engineer/Planner	Clerical	TOTAL
TOTAL ITEM 1- Travel Demand Model Enhancement	0	9	152	552	0	713
TOTAL ITEM 2 - Access Study	0	24	158	244	2	428
TOTAL ITEM 3 - Public Engagement	0	119	58	16	48	241
TOTAL ITEM 4 - Report Preparation	10	16	40	0	24	90
TOTAL ITEM 5 - Project Administration	6	24	0	0	24	54
TOTAL MANHOURS	16	192	408	812	98	1526

HOURLY SALARY RATE	\$79.90	\$63.03	\$45.22	\$31.86	\$26.71	
PAYROLL COST	\$1,278.40	\$12,101.76	\$18,449.76	\$25,870.32	\$2,617.58	\$60,317.82
				TOTAL LABOR COSTS		\$60,317.82
				OVERHEAD AT 157.93%		\$95,259.93
				PROFIT AT 10%		\$15,557.78
				CAPITAL COST OF MONEY AT 0.1547%		\$93.31
				TOTAL LABOR		\$171,228.84
				DIRECT COSTS		\$15,129.65
				PROFIT @ 10%		\$1,512.97
				TOTAL DIRECT COSTS		\$16,642.62
				ALPHA ASSOCIATES		\$62,075.79
				MAXIMUM AMOUNT PAYABLE		\$249,947.25

Our firm's latest audited overhead including technology costs is 157.93%
Facilities Capital Cost of Money Rate = 0.1547%



Item 1 - Travel Demand Modeling	Principal	PM/Senior Engineer	Engineer/Planner	Jr Engineer/Planner	Clerical	TOTAL
Item 1.1 Time of Day Model Enhancement						
Identify time-of-day factors	0	0	8	52	0	60
Update model script/matrices	0	0	8	60	0	68
Evaluate factor performance	0	0	8	80	0	88
Total Item 1.1	0	0	24	192	0	216
Item 1.2 Trip Distribution Review						
Review mobile phone O-D data	0	2	8	66	0	76
Test trip distribution adjustments	0	0	8	16	0	24
Total Item 1.2	0	2	16	82	0	100
Item 1.3 Subarea Network Review and Update						
Review/adjust street network/connectors	0	0	8	24	0	32
Subdivide TAZ in network/adjust model scripts for new TAZs	0	0	8	40	0	48
Review Travel Time Data	0	0	0	4	0	4
Make Network adjustments for observed corridor speeds	0	0	2	20	0	22
Total Item 1.3	0	0	18	88	0	106
Item 1.4 Travel Model Application						
Report validation statistics	0	1	6	36	0	43
Develop User Interface	0	0	36	0	0	36
Model validation and performance presentation	0	1	16	2	0	19
Model study alternatives (No-Build, TSM, & 5 Alts)	0	4	16	80	0	100
Post-process refined corridor traffic forecasts	0	1	12	32	0	45
Develop ridership outside of MMMPO model	0	0	8	40	0	48
Total Item 1.4	0	7	94	190	0	291
TOTAL HOURS	0	9	152	552	0	713



Item 2 - Access Study	Principal	PM/Senior Engineer	Engineer/Planner	Jr Engineer/Planner	Clerical	TOTAL
Item 2.1 Site Visits						
Site visit #1	0	0	16	16	0	32
Site visit #2	0	0	8	8	0	16
Total Item 2.1	0	0	24	24	0	48
Item 2.2 Data Review and Collection						
Obtain, review, and summarize reports	0	1	16	16	0	33
Crash data analysis	0	1	8	24	0	33
MMMPO provided Travel Time Data	0	0	0	0	0	0
Develop GIS database	0	1	24	0	0	25
Prepare GIS base map	0	1	16	0	0	17
Total Item 2.2	0	4	64	40	0	108
Item 2.3 Develop Purpose and Need Statement						
Develop Purpose and Need Statement	0	2	8	0	0	10
Submit Technical Memorandum	0	1	4	0	1	6
Revise Purpose and Need Statement	0	1	2	0	1	4
Total Item 2.3	0	4	14	0	2	20
Item 2.4 Alternative Development						
Develop alternatives (up to 5 alternatives)	0	2	10	0	0	12
Develop Transportation System Management (TSM) strategies	0	1	2	0	0	3
Prepare maps for each alternative in GIS	0	1	0	16	0	17
Total Item 2.4	0	4	12	16	0	32
Item 2.5 Alternative Analysis						
Fatal flaw analysis	0	2	4	12	0	18
Alternative typical section development	0	2	4	24	0	30
Alternative cost estimates	0	2	12	40	0	54
Right of way analysis	0	2	12	40	0	54
Prepare matrix	0	2	12	16	0	30
Total Item 2.5	0	10	44	132	0	186
Item 2.6 Environmental Red Flag Analysis						
Analysis (5 Alternatives)	0	2	0	32	0	34
Total Item 2.6	0	2	0	32	0	34
TOTAL HOURS	0	24	158	244	2	428



Item 3 - Public Engagement	Principal	PM/Senior Engineer	Engineer/Planner	Jr Engineer/Planner	Clerical	TOTAL
Item 3.1 Project Website						
Develop project website	0	2	0	0	24	26
Monthly updates	0	0	6	0	12	18
Coordination with MMMPO	0	2	0	0	0	2
Total Item 3.1	0	4	6	0	36	46
Item 3.2 Technical Committee Meetings (3 Total)						
Meeting preparation	0	3	3	0	3	9
Meeting attendance	0	24	24	0	0	48
Prepare and submit meeting notes (Review by HDR)	0	1.5	0	0	0	1.5
Total Item 3.2	0	28.5	27	0	3	58.5
Item 3.3 Stakeholder Committee Meetings (3 Total)						
Meeting preparation	0	3	3	0	3	9
Meeting attendance (Assume same day as TC Meetings)	0	0	0	0	0	0
Prepare and submit meeting notes (Review by HDR)	0	1.5	0	0	0	1.5
Total Item 3.3	0	4.5	3	0	3	10.5
Item 3.4 Public Meetings (3 Total)						
Meeting preparation	0	6	6	16	6	34
Meeting attendance	0	48	0	0	0	48
Prepare and submit meeting notes (Review by HDR)	0	3	0	0	0	3
Total Item 3.4	0	57	6	16	6	85
Item 3.5 Informal One-on-one Meetings (5 Total)						
Informal one-on-one meetings (Assume same day as TC 1)	0	5	0	0	0	5
Total Item 3.5	0	5	0	0	0	5
Item 3.6 Presentations to MMMPO Board (2 Total)						
Presentations to MMMPO Board (Assume same day as T	0	4	0	0	0	4
Total Item 3.6	0	4	0	0	0	4
Item 3.7 Presentations to WVDOT (2 Total)						
Presentations to WVDOT	0	16	16	0	0	32
Total Item 3.6	0	16	16	0	0	32
TOTAL HOURS	0	119	58	16	48	241



Item 4 - Report Preparation	Principal	PM/Senior Engineer	Engineer/ Planner	Jr Engineer/ Planner	Clerical	TOTAL
Item 4.1 Existing and Future Conditions Report						
Prepare Report and appendices	0	4	8	0	8	20
QA/QC	4	0	0	0	0	4
Total Item 4.1	4	4	8	0	8	24
Item 4.2 Draft Report						
Prepare Report and appendices	0	4	8	0	8	20
QA/QC	4	0	0	0	0	4
Total Item 4.2	4	4	8	0	8	24
Item 4.3 Final Report						
Address Draft Report Comments	0	4	16	0	0	20
Prepare Report and appendices	0	4	8	0	8	20
QA/QC	2	0	0	0	0	2
Total Item 4.3	2	8	24	0	8	42
TOTAL HOURS	10	16	40	0	24	90



Item 5 - Project Administration	Principal	PM/Senior Engineer	Engineer/ Planner	Jr Engineer/ Planner	Clerical	TOTAL
Project management (assume 12 months)	6	12	0	0	12	30
Project invoicing/filing (assume 12 months)	0	12	0	0	12	24
Total Item 5	6	24	0	0	24	54
TOTAL HOURS	6	24	0	0	24	54



A. Travel

Site Visit Mileage (2 Trips) Weirton to/from Morgantown	2 Trips @	160 Miles =	320
Technical & Stakeholder Meeting Mileage (3 Trips) Weirton to/from Morgantown	3 Trips @	160 Miles =	480
Technical & Stakeholder Meeting Mileage (3 Trips) Columbus to/from Morgantown	3 Trips @	425 Miles =	1,275
Public Meeting Mileage (3 Trips) Weirton to/from Morgantown	3 Trips @	160 Miles =	480
WV DOT Meeting Mileage (2 Trips) Weirton to/from Charleston	2 Trips @	420 Miles =	840
Miscellaneous Site Mileage	1 Trips @	200 Miles =	<u>200</u>
			3,595
	3,595 Miles @	\$0.470 Per Mile =	\$1,689.65
Airfare (model validation presentation) Omaha to Pittsburgh	1 Trip @	\$500.000 Per Trip =	\$500.00
Site Visit #1 (2 people @ 1 night)			
Meals	2 Days @	\$46.00 Per Day =	\$92.00
Lodging (\$98.00 plus \$12.00 tax)	2 Nights @	\$110.00 Per Night =	\$220.00
Technical & Stakeholder Meetings (1 person @ 1 night - assume 3 meetings)			
Meals	3 Days @	\$46.00 Per Day =	\$138.00
Lodging (\$98.00 plus \$12.00 tax)	3 Nights @	\$110.00 Per Night =	\$330.00
Model Validation Presentation (1 person @ 1 day)			
Meals	1 Days @	\$46.00 Per Day =	\$46.00
Lodging (\$98.00 plus \$12.00 tax)	1 Nights @	\$110.00 Per Night =	\$110.00
Public Meetings (3 meetings @ 1 day)			
Meals	3 Days @	\$46.00 Per Day =	\$138.00
Lodging (\$98.00 plus \$12.00 tax)	3 Nights @	\$110.00 Per Night =	\$330.00
		Subtotal - Item A	<u>\$3,593.65</u>



B. Prints, Film, and Reproductions

Check Copies					
Photocopies 8.5x11 or 11x17	1,000 Copies @	\$0.10 Each	=		\$100.00
Draft Submission					
15 copies @ 200 sheets	3,000 Copies @	\$0.10 Each	=		\$300.00
Final Submission					
15 copies @ 200 sheets	3,000 Copies @	\$0.10 Each	=		\$300.00
Meeting Handouts and Displays					
Technical Committee Meetings (6 Meetings)	60 Copies @	\$0.10 Each	=		\$6.00
Stakeholder Committee Meetings (6 Meetings)	60 Copies @	\$0.10 Each	=		\$6.00
Public Meetings (3 Meetings)	3,000 Copies @	\$0.10 Each	=		\$300.00
One-on-one Meetings (5 Meetings)	50 Copies @	\$0.10 Each	=		\$5.00
MMMPO Board Meetings (3 Meetings)	600 Copies @	\$0.10 Each	=		\$60.00
22x34 Mounted Display Boards	10 Boards @	\$30.00 Each	=		\$300.00
USB (3 submissions)	3 Each	\$5.00 Each	=		\$15.00
				Subtotal - Item B	\$1,392.00

C. Postage and Telephone

Postage - USPS Letter (12 invoices)	12 Mailings @	\$2.00 Each	=		\$24.00
Postage - UPS Box (3 submissions)	3 Mailings @	\$40.00 Each	=		\$120.00
				Subtotal - Item C =	\$144.00

D. Data Collection

AirSage	1 Request @	\$10,000.00 Each	=		\$10,000.00
INRIX	0 Request @	\$4,000.00 Each	=		\$0.00
				Subtotal - Item D =	\$10,000.00

Total Direct Costs

\$15,129.65



Exhibit C

Hourly Rate Certification



<u>CLASSIFICATION</u>	<u>2015 Rate/Hour</u>	<u>Proposal Rate/Hour</u>
Project Principal	\$79.90	\$79.90
PM/Senior Engineer	\$57.17 \$68.88 <hr/> \$63.03	\$63.03
Engineer/Planner	\$40.20 \$52.00 \$43.46 <hr/> \$45.22	\$45.22
Jr Engineer/Planner	\$29.72 \$34.00 <hr/> \$31.86	\$31.86
Clerical	\$28.86 \$27.00 \$24.28 <hr/> \$26.71	\$26.71

I certify the above hourly rates to be accurate as of the date of this proposal.



Amy Balmer Staud, PE, PTOE
Associate Vice President



Exhibit D

Subconsultant Fee Proposal



SUMMARY BY CLASSIFICATION AND TASK

	Principal	Senior Engineer	Engineer	Technician	Clerical	TOTAL
TOTAL ITEM 1- Travel Demand Model Enhancement	0	0	0	0	0	0
TOTAL ITEM 2 - Access Study	34	90	72	0	0	196
TOTAL ITEM 3 - Public Engagement	97	6	0	0	46	149
TOTAL ITEM 4 - Report Preparation	10	16	0	0	0	26
TOTAL ITEM 5 - Project Administration	36	0	0	0	12	48
TOTAL MANHOURS	177	112	72	0	58	419

HOURLY SALARY RATE	\$63.14	\$54.20	\$36.65	\$28.47	\$25.66	
PAYROLL COST	\$11,175.78	\$6,070.40	\$2,638.80	\$0.00	\$1,488.28	\$21,373.26
				TOTAL LABOR COSTS		\$21,373.26
				OVERHEAD AT 158.723%		\$33,924.28
				PROFIT AT 10%		\$5,529.75
				TOTAL LABOR		\$60,827.29
				DIRECT COSTS		\$1,154.90
				PROFIT @ 10%		\$115.49
				TOTAL DIRECT COSTS		\$1,270.39
				MAXIMUM AMOUNT PAYABLE		\$62,097.68

Our firm's latest audited overhead including technology costs is 158.72%



Item 1 - Travel Demand Modeling	Principal	Senior Engineer	Engineer	Tecnician	Clerical	TOTAL
Item 1.1 Time of Day Model Enhancement						
Identify time-of-day factors	0	0	0	0	0	0
Update model script/matrices	0	0	0	0	0	0
Evaluate factor performance	0	0	0	0	0	0
Total Item 1.1	0	0	0	0	0	0
Item 1.2 Trip Distribution Review						
Review mobile phone O-D data	0	0	0	0	0	0
Test trip distribution adjustments	0	0	0	0	0	0
Total Item 1.2	0	0	0	0	0	0
Item 1.3 Subarea Network Review and Update						
Review/adjust street network/connectors	0	0	0	0	0	0
Subdivide TAZ in network/adjust model scripts for new TAZs	0	0	0	0	0	0
Review Travel Time Data	0	0	0	0	0	0
Make Network adjustments for observed corridor speeds	0	0	0	0	0	0
Total Item 1.3	0	0	0	0	0	0
Item 1.4 Travel Model Application						
Report validation statistics	0	0	0	0	0	0
Model validation and performance presentation	0	0	0	0	0	0
Model study alternatives (No-Build, TSM, & 5 Alts)	0	0	0	0	0	0
Post-process refined corridor traffic forecasts	0	0	0	0	0	0
Total Item 1.4	0	0	0	0	0	0
TOTAL HOURS	0	0	0	0	0	0



Item 2 - Access Study	Principal	Senior Engineer	Engineer	Technician	Clerical	TOTAL
Item 2.1 Site Visits						
Site visit #1	0	8	0	0	0	8
Site visit #2	0	8	0	0	0	8
Total Item 2.1	0	16	0	0	0	16
Item 2.2 Data Review and Collection						
Obtain, review, and summarize reports	2	16	16	0	0	34
Crash data analysis	0	0	0	0	0	0
Conduct travel time runs and reduce data (3 corridors) - BY MPO	0	0	0	0	0	0
Develop GIS database	0	0	0	0	0	0
Prepare GIS base map	0	0	0	0	0	0
Total Item 2.2	2	16	16	0	0	34
Item 2.3 Develop Purpose and Need Statement						
Develop Purpose and Need Statement	2	2	0	0	0	4
Submit Technical Memorandum	0	0	0	0	0	0
Revise Purpose and Need Statement	0	0	0	0	0	0
Total Item 2.3	2	2	0	0	0	4
Item 2.4 Alternative Development						
Develop alternatives (up to 5 alternatives)	12	24	24	0	0	60
Develop Transportation System Management (TSM) strategies	0	0	0	0	0	0
Prepare maps for each alternative in GIS	0	0	0	0	0	0
Total Item 2.4	12	24	24	0	0	60
Item 2.5 Alternative Analysis						
Fatal flaw analysis	8	16	16	0	0	40
Alternative typical section development	0	0	0	0	0	0
Alternative cost estimates	0	0	0	0	0	0
Right of way analysis	4	8	8	0	0	20
Prepare matrix	4	0	0	0	0	4
Total Item 2.5	16	24	24	0	0	64
Item 2.6 Environmental Red Flag Analysis						
Analysis (5 Alternatives)	2	8	8	0	0	18
Total Item 2.6	2	8	8	0	0	18
TOTAL HOURS	34	90	72	0	0	196



Item 3 - Public Engagement	Principal	Senior Engineer	Engineer	Technician	Clerical	TOTAL
Item 3.1 Project Website						
Develop project website	0	0	0	0	0	0
Monthly updates	0	0	0	0	0	0
Coordination with MMMPO	0	0	0	0	0	0
Total Item 3.1	0	0	0	0	0	0
Item 3.2 Technical Committee Meetings (3 Total)						
Meeting preparation	6	3	0	0	0	9
Meeting attendance	12	0	0	0	0	12
Prepare and submit meeting notes	6	0	0	0	6	12
Total Item 3.2	24	3	0	0	6	33
Item 3.3 Stakeholder Committee Meetings (3 Total)						
Meeting preparation	6	3	0	0	0	9
Meeting attendance	12	0	0	0	0	12
Prepare and submit meeting notes	6	0	0	0	6	12
Total Item 3.3	24	3	0	0	6	33
Item 3.4 Public Meetings (3 Total)						
Meeting preparation	6	0	0	0	6	12
Meeting attendance	12	0	0	0	12	24
Summarize meeting comments	6	0	0	0	6	12
Total Item 3.4	24	0	0	0	24	48
Item 3.5 Informal One-on-one Meetings (5 Total)						
Informal one-on-one meetings	5	0	0	0	10	15
Total Item 3.5	5	0	0	0	10	15
Item 3.6 Presentations to MMMPO Board/WVDOH (2 in Morgantown)						
Presentations to MMMPO Board/WVDOH	4	0	0	0	0	4
Total Item 3.6	4	0	0	0	0	4
Item 3.7 Presentations to WVDOH (1 in Charleston)						
Presentations to MMMPO Board/WVDOH	16	0	0	0	0	16
Total Item 3.7	16	0	0	0	0	16
TOTAL HOURS	97	6	0	0	46	149



Item 4 - Report Preparation	Principal	Senior Engineer	Engineer	Technician	Clerical	TOTAL
Item 4.1 Existing and Future Conditions Report						
Prepare Report and appendices	4	8	0	0	0	12
QA/QC	0	0	0	0	0	0
Total Item 4.1	4	8	0	0	0	12
Item 4.2 Draft Report						
Prepare Report and appendices	4	4	0	0	0	8
QA/QC	0	0	0	0	0	0
Total Item 4.2	4	4	0	0	0	8
Item 4.3 Final Report						
Address Draft Report Comments	2	4	0	0	0	6
Revise Report and appendices	0	0	0	0	0	0
QA/QC	0	0	0	0	0	0
Total Item 4.3	2	4	0	0	0	6
TOTAL HOURS	10	16	0	0	0	26



Item 5 - Project Administration	Principal	Senior Engineer	Engineer	Technician	Clerical	TOTAL
Project management (assume 12 months)	24	0	0	0	0	24
Project invoicing/filing (assume 12 months)	12	0	0	0	12	24
Total Item 5	36	0	0	0	12	48
TOTAL HOURS	36	0	0	0	12	48



A. Travel

Charleston Visit Mileage (1 Trips) Morgantown to/from Charleston	1 Trips @	320 Miles =	320
Technical & Stakeholder Meeting Mileage (6 Trips) Weirton to/from Morgantown	6 Trips @	6 Miles =	36
Technical & Stakeholder Meeting Mileage (6 Trips) Columbus to/from Morgantown	6 Trips @	6 Miles =	36
Public Meeting Mileage (3 Trips) Weirton to/from Morgantown	3 Trips @	6 Miles =	18
Miscellaneous Site Mileage(trips counts, etc)	1 Trips @	60 Miles =	<u>60</u>
			470
	470 Miles @	\$0.470 Per Mile	\$220.90
Airfare (model validation presentation) Omaha to Pittsburgh	Trip @	\$600.000 Per Trip =	\$0.00
Rental Car (assume 2 days)	Days @	\$60.000 Per Day =	\$0.00
Site Visit #1 (2 people @ 1 night) Meals	0 Days @	\$46.00 Per Day =	\$0.00
Lodging (\$98.00 plus \$12.00 tax)	0 Nights @	\$110.00 Per Night =	\$0.00
Technical & Stakeholder Meetings (1 person @ 1 night - assume 7 meetings) Meals	0 Days @	\$46.00 Per Day =	\$0.00
Lodging (\$98.00 plus \$12.00 tax)	0 Nights @	\$110.00 Per Night =	\$0.00
Model Validation Presentation (1 person @ 1 day) Meals	0 Days @	\$46.00 Per Day =	\$0.00
Lodging (\$98.00 plus \$12.00 tax)	0 Nights @	\$110.00 Per Night =	\$0.00
Public Meetings (3 people @ 1 day) Meals	0 Days @	\$46.00 Per Day =	\$0.00
Lodging (\$98.00 plus \$12.00 tax)	0 Nights @	\$110.00 Per Night =	\$0.00
		Subtotal - Item A	<u>\$220.90</u>



B. Prints, Film, and Reproductions

Check Copies					
Photocopies 8.5x11 or 11x17	200 Copies @	\$0.10	Each	=	\$20.00
Draft Submission					
15 copies @ 200 sheets	200 Copies @	\$0.10	Each	=	\$20.00
Final Submission					
15 copies @ 200 sheets	0 Copies @	\$0.10	Each	=	\$0.00
Meeting Handouts and Displays					
Technical Committee Meetings (6 Meetings)	0 Copies @	\$0.10	Each	=	\$0.00
Stakeholder Committee Meetings (6 Meetings)	0 Copies @	\$0.10	Each	=	\$0.00
Public Meetings (3 Meetings)	0 Copies @	\$0.10	Each	=	\$0.00
One-on-one Meetings (5 Meetings)	0 Copies @	\$0.10	Each	=	\$0.00
MMMPO Board Meetings (3 Meetings)	0 Copies @	\$0.10	Each	=	\$0.00
22x34 Mounted Display Boards	0 Boards @	\$30.00	Each	=	\$0.00
Public Meeting Advertisements (3)	3 Each	\$250.00	Each	=	\$750.00
					Subtotal - Item B
					\$790.00

C. Postage and Telephone

Postage - USPS Letter (12 invoices)	12 Mailings @	\$2.00	Each	=	\$24.00
Postage - UPS Box (3 submissions)	3 Mailings @	\$40.00	Each	=	\$120.00
					Subtotal - Item C =
					\$144.00

D. Data Collection

O-D and INTRIX Data	0 Request @	\$30,000.00	Each	=	\$0.00
					Subtotal - Item D =
					\$0.00

Total Direct Costs

\$1,154.90



<u>CLASSIFICATION</u>	<u>2014</u> <u>Rate/Hour</u>	<u>2015</u> <u>Rate/Hour¹</u>	<u>Proposal</u> <u>Rate/Hour</u>
Project Principal	\$61.00	\$63.14	\$63.14
Senior Engineer	\$52.37	\$54.20	
	\$52.37	\$54.20	
		<u>\$54.20</u>	\$54.20
Engineer	\$38.75	\$40.11	
	\$32.07	\$33.19	
		<u>\$36.65</u>	\$36.65
Technician	\$32.50	\$33.64	
	\$22.51	\$23.30	
		<u>\$28.47</u>	\$28.47
Clerical	\$25.70	\$26.60	
	\$20.29	\$21.00	
	\$28.39	\$29.38	
		<u>\$25.66</u>	\$25.66

I hereby certify the above hourly labor rates to be accurate as of the date of this proposal

Richard A. Colebank, PE, PS
 President & COO

Notes:

1 - 2015 Rate per hour is based on an average 3.5% escalation



Exhibit E

Division's Indirect Cost Desk Review Memo



WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION
1900 Kanawha Boulevard East • Building Five • Room 109
Charleston, West Virginia 25305-0440 • (304) 558-0444

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Cabinet Secretary

Indirect Cost Desk Review Memo

Consultant HDR Engineering, Inc. and Subsidiaries
Overhead Calculation schedule for FYE 12/28/2013
Approval Date 7/7/2014
CPA Audited Ernst & Young, LLP

The West Virginia Department of Transportation (WVDOT) Auditing Division has accepted the overhead rates set forth in the Cognizant Letter issued by Nebraska Department of Roads, as stated below. A copy of this memo must be included with all new project proposals and on any requests for modifications to existing contracts.

WVDOT hereby approves the following rates:

Home Office Overhead	157.93% (as submitted)
Facility Capital Cost of Money for Home Office	N/A
Field Office Overhead	N/A
Facility Capital Cost of Money for Field Office	0.1547% (as submitted)

Application and Updates:

The approved rates should be used for cost proposals on contracts funded by State of WV and /or Federal sources, including projects for WVDOT and WV Local Public Agencies. The above rates are based on the most recent overhead calculation schedule the Consultant submitted to WVDOT. As more current cost information becomes available, it must be submitted to WVDOT within six months after the close of the Consultant's fiscal year.

Desk Review Procedures:

A desk review was not performed. We accept the cognizant review performed by Nebraska Department of Roads. WVDOT reserves the right to conduct an audit at a later date, if warranted.

The point of contact:

Rachel McGraw-Burgess

WVDOT Auditing Division
Building 5, Room 925
1900 Kanawha Boulevard East
Charleston WV 25305
304.558-3101
Email: Rachel.L.McGraw@wv.gov

Approved by:


Rachel McGraw-Burgess, Audit Supervisor

